

METHOD OF IMPROVING MEDICAL APPARATUS IN ORDER TO REDUCE OR REPLACE ANCILLARY MEDICAL ASSISTANCE BY EMPLOYING AUDIBLE VERBAL HUMAN SOUNDING VOICES WHICH PROVIDE THERAPEUTIC INSTRUCTIONS AND ENCOURAGE USAGE AND GIVE MEASUREMENTS AS NEEDED EMANATING FROM THE APPARATUS'S BY USING ELECTRONIC TECHNOLOGY

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Specification

Application: #60/475/504 and Disclosure document # 504899 relate to the amendments of the this specification herein.

The present invention relates to the improvement of medical apparatus used by the medical industry by employing the use of audible, verbal, simulated human sounding voice or voices, produced with the appropriate technology in correlation with said medical apparatus to allow the operation of the apparatus to perform it's function by the process in which a word, words, or phrases, encourages the usage of the medical apparatus itself. This relates specifically to the above said medical apparatus which require ancillary medical assistance as a normal procedure when working with the patient with the understanding that said medical apparatus needs partial or constant ancillary medical assistance to be appropriately utilized by the patient or as designated by the guidelines set for the medical apparatus. The word medical, as herein specified, relates to those apparatuses used in the Medical Field, Dentistry, Chiropractic, Therapeutic, Physical Therapy, and encompasses any therapy which requires ancillary medical assistance to properly assist the patient in the instruction usage or similar procedures normally required for said medical apparatus to be used properly in order or to help benefit in the proper operation or measurements required to help the health or medical condition of the patient though said therapy. Through the reduction or elimination of ancillary medical assistance by the use of the method of the present invention the patient can virtually use their prescribed medical apparatus on their own. The word patient, as herein specified, relates to any person or persons utilizing the above said apparatus in which ancillary medical assistance is required to assist, instruct, or prompt the patient's usage of the medical apparatus. The word humanlike relates to audible, verbal, sound which encompasses the likeness of the human voice and the characteristics thereof in order to replace, or reduce ancillary medical help in order to help the patient and the medical industry. The purpose of the present invention, is to give incentive, prompt, encourage, or inspire the patient to use the above mentioned medical apparatus along with the function of the present invention to reduce or replace the required ancillary help necessary to guide the patient through the employment of an audible, verbal, simulated human sounding voice or phrases, as relates to the specification as herein described, so that the medical apparatus will do the same function that a human assistance will do. The word ancillary medical assistance relates to a person or persons that have a responsibility in relationship to the use of the medical apparatus, other than the patient, herein specified, whether instucting or listening the function accordingly.

In order to accurately allow the concept of the present invention to encompass any combination of components necessary to facilitate the appropriate function, the exactness of structure of the components relating to the present invention will be the primary specification, as herein described. With the understanding that the embodiment to the present invention, is confined to the usage of those components needed to facilitate the function of those apparatuses related to the medical field that can benefit from the use of an audible, verbal, simulated humanlike voice in order to reduce or eliminate ancillary assistance. The present invention solely encompasses the use of humanlike voices, producing a single word, words, or phrases, simulated, prerecorded, or artificially produced, as well as generated, or any similar process that can produce or supply the necessary function to facilitate the use of the present invention, however, the function of components will be given in exactness hereto. The present invention could utilize beeps, tones, artificial sounds or noises, or anything similar that does not provide a humanlike sound of verbal simulated vocalization, but the preferred method for the function of the present invention is the use of simulated human sounding word, words, or phrases, as herein described and shall be specified as such. The word humanlike also encompasses the use of audible verbal words or phrases, or a single word that may sound different in a variety of tones, such as a speaking animal simulated voice, as animals do not normally speak, so the variation would be confined to audible verbal simulation of words according to the usage that sound like human words, encompassing any language in relationship to the medical apparatuses that pertains to the present inventions as herein described. The present invention also encompasses any and all future developed components in relationship to function and concept, that will accommodate the purpose of the specifications herein and provide the same concept pertaining to the medical field, as herein mentioned. Since most medical devices only give incentive to the patient through visual confirmation, the present invention gives an added benefit through providing audible, verbal word, words, or phrases. When the present invention is attached to, or combined with, the above said medical apparatuses, which is the synthesis with any and all of the parts, components, or equipment needed to provide the function of the new invention as herein mentioned. Some examples of devices that normally require ancillary medical assistance that could benefit through the use of audible, verbal incentive, as described herein, but not limited to, are: Adhesively attached devices, utilized solely for patients requiring assistance for continual monitoring of temperature, or Telemetry devices that relate to, but not limited to, V-tach, V-fib, SVT, Brady arrhythmia's, that will allow the medical personnel to know audibly and verbal when rapid or slow heart rate occurs without being near the patient or medical device, Peak flow devices used for measuring lung capacity, but not limited to, Ventilators, which will allow ancillary medical personnel to know audible and verbally without being directly near the medical apparatus or having to visually see the measurements, when critical parameters are causing complications and need to be met accordingly, but not limited to, Heart rate monitoring devices for therapy in which ancillary assistance is necessary to measure or monitor without having to read are watch continuously critical measurements relating to the patient, but not limited to, Oxygen tank

informative devices, that can give an audible verbal verification of the amount of gas contained, whether full or warning the ancillary medical assistant that the tank is now at a critical level without having to visually be confined to watching the levels, such as in an ambulance in which oxygen is administered and an ancillary medical assistant must keep the tanks filled as properly required to the exact amounts so that the patient will not decrease during travel, due to lack of oxygen during the trip to the hospital or other medical facilities, but not limited to this exact performance, Voice timers in relationship to the medical profession, such as devices that will inform the doctor or ancillary medical assistance of the time for a specific function, such as rinsing the heart valve, which should be rinsed for at least a specific amount of time which due to the exactness, may require an ancillary medical assistance to time the rinsing intervals for the doctor and by replacing this ancillary medical personnel with the audible, verbal use of the present invention, medical personnel will be informed of those exact times according to the particular field of medical work being done without human assistance, but not limited to the exact example as stipulated above, as there are many needs for timing procedures in which ancillary medical assistance may be used in relationship to a medical apparatus and providing timing for the function of that apparatus, so the above said usage of the present invention applies to the concept of a timing mechanism facilitating the necessary function normally required by ancillary medical assistance such as Incentive Spirometry Devices or Peak Flow Device, normally used for lung rehabilitation. Blood pressure machines, all which require ancillary medical assistance, as demonstrated in hospitals throughout the world, as well as, Pulse monitoring devices which only use visual incentive, such as LCD display to provide verification of adequate measurements, and with the use of the present invention no person would be required to visually watch critical measurements or medical functions. Since there are so many medical apparatus that require ancillary medical assistance to be used, the present invention is to be more inclusive of the function, as herein stipulated. The present invention encompasses those medical apparatus's that require ancillary medical assistance during the use of said medical apparatus in order to be adequately used by the patient or medical personnel and shall be confined to the fact that an ancillary medical assistance has been required to assist in the use of said medical apparatus at sometime during a related medical situation, even if the medical device could be used without assistance, though preferable not recommended. The aforementioned audible, verbal commands or responses produced by the present invention will allow the patient to obtain the particular goals, utilizing the present invention if needed to facilitate the function of the medical apparatus that it is being used with, herein described and can be adjusted accordingly to tell the patient the exact volumes, points, ratios, or performances and any other verification of operation necessary to supply the appropriate function required by that apparatus being used at the time, according to the pre-programming and shall be possible according to the function of the present invention as deemed necessary by the manufacturer, preferably as requested by the therapist or doctors according to the required therapy for the particular medical

apparatus being used. This availability to audibly and verbally hear the accurate readings and encouraging phrases to prompt usage by the patient will help the patient reach whatever goals or therapeutic pronunciation of exactness towards those goals, that the present invention provides, as herein specified, however, it is not required to allow the patient to set any adjustment and the preferred method of function of the present invention may be to not allow the patient to have any control over the medical apparatus that is being used in relationship to the function of the present invention. Since utilizing the combination of the present invention with the already existing above said medical apparatuses provides both visual and audible incentive, it is obvious that the combination of both audible and visual, is more applicable for fulfilling the most functional purpose, and will be described herein pertaining to such, however not limited to. Thus the main purpose for the audible, verbal human voice commands, or responses as provided by the present invention is to prompt usage of the above said apparatuses in order to improve whatever condition is being treated. There may be different technical ways of providing the simulated vocalization of a human sounding voice, but a method of technology necessary to produce the function as described herein, will show the utilization of the appropriate required combination of equipment necessary to produce the present invention in a unique and new method, thus this new method will not only fulfill the need to reduce ancillary assistance in the medical field but it will also show how to also produce the best quality, audible, and verbally produced word, words, or phrases when attached to or combined with, the above said medical apparatuses and the following components in order to accommodate the patient's need for the sound of the voice being simulated, instructing the patient accordingly .

One example, set for the components as described herein so that they will coincide with the visual readings that normally exist on those said apparatuses which will pertain to the patient's particular needs, with corresponding audible, verbal, simulated humanlike voice phrases, allowing the blind to benefit as well as the patient with sight, as the blind will be able to hear their settings, produced outputs, volumes, or ratios or any similar readings necessary to achieve the functions required, as well as any numeral context, but not limited to, relating to their input or preprogrammed function of the present invention . This is achieved by the target measurement gauged by the present invention as programmed in synthesis with whatever apparatus is being used in which a gauge or similar device is used to show measurement. When one reaches his or her particular goals, or completed the function of that apparatus utilizing the present invention, an audible verbal response in the unit will give an immediate indication of whether their perspective goals have been reached, through audible, verbal, simulated humanlike voices, giving the exact measurements and helpful incentive to encourage the patient to try harder or verbally confirm that the patient has achieved their goal accordingly. A voice chip, or similar unit, but not limited to, as herein mentioned, constructed within the above mentioned new present invention, in

combination with whatever apparatus is being used can provide simulated vocalization of human voices, (male or female, but not limited to), and will prompt or inform the patient through encouraging audible word, words, or phrases to either, "stop", "try again", or "good job you hit your mark" or "keep on going", or similar phrase, or whatever phrase meets the particular specifications of the apparatuses being used, but not limited to, according to the particular use of the new medical device needed at the time. Should cost be a consideration, the present invention can be changed according to the number of commands, or responses and can be made complex or simple, giving the apparatuses more voices or phrases, or specific audible, verbal simulated vocalizations producing whatever amount of responses or commands that the construction of the apparatus needs according to its usage, giving the apparatus the maximum optional ability, or the present invention can be constructed utilizing the minimal amount of parts, components, or equipment, as desired, to perform the necessary function of the apparatus being constructed. Since, the usual voice modules, chips, microcontrollers, or similar devices or components, as aforementioned, provide the necessary function required as herein described, vary in price according to their capabilities, one can construct a more complex apparatus utilizing the present invention or modify the construction to meet the needs of the patient, or combined with the above said apparatuses at whatever degree of complexity is required to supply the necessary function. These audible, verbal, humanlike voice phrases comprised of commands and/or responses will give a corrective command if necessary, prompting the patient or person using the present invention to continue to use the apparatus in order to achieve the goals that have been set, or will prompt the patient to start using the device by constantly prompting usage, until the patient begins to use the present invention again. A speaker, or similar device, can be attached to whatever housing as a part of the combination needed to produce the audible, verbal sound of the present invention on the aforementioned apparatuses as needed, as herein described and the present invention can have as many audible, verbal commands and responses as desired within the construction of the apparatuses supplying simulated humanlike voice, phrases or words as desired, according to the output potential employed by the construction of the above said apparatus, but not contained to any degree, yet confined to what technology currently provides, as specific ratios and output will depend on the application to promote the usage of each apparatus using the present invention as each apparatus may require particular specialization's to provide the audible, verbal, simulated humanlike voice phrases, word, or words, as the provider of the apparatus shall maintain the specifications or structure of each unit produced, in which the present invention is utilized. Another important benefit of the present invention is the ability to install a programmable timer for letting the person manipulating the device, should this particular function be desired,

not required, to recognize what time he or she should begin using the apparatus, in relationship to the above said purpose, function and concept as specified herein. A storing mechanism which can through digital technology or any other technology available, allow data to be stored, recording information relating to the patient's usage of the above said apparatuses, however not required, will allow the doctors or therapists to monitor the frequency of use and allow feedback to be given to the patient to help in their recovery, according to the medical diagnosis, utilizing the present invention as an instrument for monitoring the patients particular needs, to determine whether those patients not meeting their targeted goals should be given additional or more intensive treatment. Many times this is a hidden and unrecognized problem and monitoring can easily be recorded through the use of technology along with the present invention, however not required in relationship to the main function as herein described, allowing immediate feedback and monitoring of quality care, this can reduce complications, and can be provided without the use of medical assistance, according to the particular apparatuses being used. It is commonly known to one skilled in the medical profession that one must be diligent to use the medical apparatuses prescribed, in order to benefit from the treatments and through the use of the present invention, which provides audible, verbal, simulated humanlike voices phrases and reminders that will continue to prompt the patient, giving audible, verbal encouragement, until the patient uses the apparatus again, in order to benefit the patient accordingly in relationship to the particular requirements of the medical apparatuses. Most physicians suggest usage of medical devices, usually on specific intervals, and the present invention can be set, or gauged according to the constructors desire, to provide audible, verbal, simulated humanlike voice phrases, to inform the patient of the exact times and intervals in which the patient should use their particular apparatus and only relates to whatever apparatuses that are employing said usage as herein described, that can benefit the patient by said usage as aforementioned, in relationship to the concept. To expedite said usage at the prescribed times, the present invention will not only benefit the Medical Industry by supplying an audible, verbal, simulated humanlike voice, which will prompt, encourage, and inform the patient, or person using their particular medical apparatus, but it will also help decrease the recuperation time of the patient, by continually reminding the patient until the performed requirements required by that apparatus being used are met. Another, important function of the present invention through the technology available is to provide a way to retrieve data from the medical apparatus's which can be stored or recorded for viewing at a later time to provide the necessary monitoring and diagnosis according to those particular reading retrieved, however this

is not required for the completion of the concept, rather an added advantage. Another, added advantage, however, not limited to, or conclusive to the present invention would be the ability to retrieve data from the medical apparatus from a base station through radio frequencies, or whatever technology allows such performance, that provide information without having to be present at the location of the patient or user. This function provided by the present invention confirms a well known principle valued by the medical profession that, "the more one uses the prescribed treatment, the faster one recuperates." With the conception of the present invention a new step in medical progress will be made, as the patient will be using the device on their own, through the use of the present invention thus reducing the need for ancillary medical personnel, decreasing cost. Thus, this cost effective new device as well as a health benefit for the patient, disposable accordingly due to the extremely low cost for producing the new invention, or permanent according to the manufacturers desire will not only help the patient fulfill their goals for his or her medical progress as needed, but also save the hospital, a considerable amount of money, as the present invention will reduce the need for unsupervised medical attention by ancillary medical assistance replacing those present positions and responsibilities, by giving incentive to the patient, or gauging the patient's performance through the function of the present invention as specified herein, which is normally a mandatory task, all which will be accomplished by the employment of audible, verbal, simulated humanlike voices applied to the medical apparatus itself to encourage patient's usage, as well as reduce or eliminate ancillary medical assistance.